Lingue e Linguaggi
Lingue Linguaggi 42 (2021), 123-150
ISSN 2239-0367, e-ISSN 2239-0359
DOI 10.1285/i22390359v42p123

FRAMING ARGUMENT FOR SPECIALISED KNOWLEDGE: INTERACTIONAL METADISCOURSE MARKERS IN ECONOMICS AND LAW RESEARCH ARTICLES

GIROLAMO TESSUTO
UNIVERSITÀ DELLA CAMPANIA "LUIGI VANVITELLI"

Abstract – This chapter examines the patterns of interactional metadiscourse use in the disciplines of Economics and Law, and draws upon Hyland's (2005a) analytical framework of metadiscourse markers along with other integrative frameworks in an approximately 160,000-word corpus of social science empirical research articles in these fields. Both distributional and functional analyses of metadiscourse resources show that there are similarities as well as differences between the two disciplines in terms of how writers structure their argumentative texts for their readers, and how they draw on their understandings of these resources to report the results of their original study to their readers. It is argued that metadiscursive use may be accounted for by the epistemologies behind the existing qualitative and quantitative methods of empirical research alongside a range of experiential, social and identity-shaping variables of the writers involved in this kind of argumentative genre. By contributing additional evidence to current published research, this study aims to provide a greater understanding of metadiscourse in the argumentative writing practices of the research article.

Keywords: discourse and genre; argumentation; metadiscourse.

1. Introduction

Research on metadiscourse has often focused on cross-disciplinary comparisons and presented intricate findings of how academic writers from different disciplinary communities follow different conventions for knowledge construction and communication (Becher, Trowler 2001; Hyland 2005a, 2005b, 2010), and how disciplinary branches exhibit different epistemological traditions and research methodologies (Abdi 2011). Besides rhetorical self-reflective expressions of metadiscourse in academic discourse studies (Aguilar 2008; Hyland 2005b) on the differential use of metadiscourse in different types of academic writing have shown that it is influenced by the writers' linguistic and cultural backgrounds (Dahl 2004; Li, Wharton 2012), the conventions behind disciplines and genres (Abdi 2002;

Bondi 2010; Fu, Hyland 2014; Gillaerts, van de Velde 2010; Hyland 2005a, 2005b; Salas 2015; Tse, Hyland 2006), and the publishing contexts (Mur-Dueñas 2011), with significant differences found in the expression of interpersonal values through personal pronouns (Lorés-Sanz 2006) and evaluative markers (Mur-Dueñas 2010) within EAP intercultural rhetorical studies. However, metadiscourse analysis has also provided a gateway for understanding the interactional activity done in the genre of academic legal case notes (Tessuto 2012) and the genre of academic legal blogs (Tessuto 2015a), medical research blogs (Tessuto 2020a), and research and publication ethics cases (Tessuto 2020b).

When it comes to the high-stake genre of academic research articles, the effective use of metadiscourse devices to achieve a rhetorical purpose not only depends on understanding the different kinds of research argument that are shaped across the established practices of disciplines and their discourses, but also hinges on a shared knowledge of disciplinary contexts and practices between writers and readers. In research articles, where readers are not just passive recipients of textual effects, data must be organized by writers into meaningful patterns for readers to share cultural, academic, and rhetorical practices. These texts are the channels through which writers build an evidentiary argument to convince the readers of their own thesis, or their main hypothesis, as is in science, and often result in the article research designs and methods being either qualitative, quantitative, or mixed in approaches. But because discoursal decisions are influenced by the enquiry patterns and scientific knowledge structures of individual disciplines, effectiveness in making metadiscourse choices provides the basis for acceptable forms of argument in research articles produced for a target disciplinary community, and similarly fits the “persuasive” and “argumentative” nature of metadiscourse in academic writing (Hyland 2005a, p. 5).

Just as academic research articles look for persuasion in textual practices and provide a more nuanced understanding of disciplinary communities, so too they align with the traditional logic and philosophy theories of “argumentation” that define several components of an argument, such as *claim*, *support*, and *warrant* (Toulmin 2003; Walton *et al*. 2008). This is because science and scientific discourse involve the construction of theories that provide explanations for phenomena that are open to refutation, and emphasize the importance of arguments about the interpretation of evidence and the validity of knowledge claims. So, in a typical research article, the writer’s use of, for instance, *warrant* statements that provide a link between *data* and *claims*, or *backing* statements that strengthen the *warrants*, inevitably contains traces of disciplinary activities that foster the process of writer’s justification and elaboration of evidence and support the reliability of knowledge claims for persuasive purposes in response to highly sophisticated scientific arguments. Among these components, a *backing* statement is the kind of evidence that research article writers need to collect in any proper investigation, so that the various steps that can be taken in defense of a standpoint (such as *claim*, *support*, *warrant*) significantly help these writers to develop an effective line of argument that their audience is likely to find persuasive. Within a pragma-dialectical framework of argumentation (van Eemeren, Garssen 2011, p. 5), these procedural forms of argument suggest that writers of research articles not only "secur[e] communion with the people the argumentative discourse is aimed at", but most importantly they "achieve certain communicative and interactional effects on an audience" in science and scientific discourse. So, looking at the role of argumentation in scientific writing tells us a lot about how writers seek to present themselves and appeal to their readers in relation to their topics available from within the boundaries of their disciplines.

But the metadiscourse practices employed to frame arguments in the rhetorically-loaded aspects of research article writing are not foreign to the important identity-or voice-constructing activity in academic discourse. In this sense, some approaches to 'voice' range, for instance, from the notion of voice as writer identity and 'self-representation' that is discursively constructed in all forms of writing (Ivanič, Camps 2001, pp. 2-8), voice as "the amalgamative effect of the use of discursive and non-discursive features" that form "a significant component of identity" (Matsuda 2001, pp. 40-41), to voice as an important aspect of identity that is indexed through the use of linguistic resources such as hedges, boosters (Biber 2006; Hyland 2005a). So, if an important implication of such different, but complex perspectives is that identity is discursively and dynamically constructed, it follows that the ways research article writers engage with the use of different metadiscourse resources play a key impact in the discoursal construction of their identity in scientific writing. At the same time, they help to give identity to their disciplines by contributing to the social relations that organize the authors' academic practices.

Given that metadiscourse is an important tool for the analysis of disciplinary orientations in written academic discourse, further opportunities arise from the need to examine the role played by argumentative metadiscursive elements in the important genre of academic research articles from two specific disciplines. To this end, the study in the present paper has the following objectives:

1. To evaluate the similarities and/or differences in the use of metadiscourse markers between Economics and Law research articles and the ways they frame research argument for specialized knowledge.

2. To examine the rhetorical use of metadiscourse markers and the ways they enable scientific writers to represent themselves and their readers in this kind of argumentative discourse alongside the negotiable nature of relationships and writer identities realized by individual linguistic choices.

Prior to answering these questions, I will first indicate the empirical material and research method employed. Then, I will undertake the analysis and discussion of the findings for these questions and draw conclusions.

2. Corpus building, methodology and procedure

2.1. Corpus building

The analytical data for this study came from a synchronous corpus of English-medium, multiple-authored academic research articles (RAs) from the social science fields of Economics and Law available from the Oxford Academic Open-Access platform and the Wiley Online Library. Three reputable peer-reviewed journals were selected from each discipline, with the Economics journals including *The Economic Journal*, *Economic Policy*, and *The Econometrics Journal* supported by Oxford Open, and the Law journals consisting of *The British Journal of Criminology*, the *Journal of Empirical Legal Studies*, and the *Law & Society Review* secured by Wiley (Table 1). Two equal-size corpora were built for both disciplines through the random selection of 10 RAs of Economics and 10 RAs of Law (see Table 1) published between 2015 and 2019, exemplifying the category of lead articles in a corpus of 20 samples.

Only the research articles in the two subcorpora were downloaded from the electronic versions of the relevant journals and converted into Rich Text format for computer storage. In this procedure, only the main text was kept for each article, meaning that its title, abstract, figures, tables, notes and references were removed from the current analytical data. As a result, as determined by the word count option in WordSmith Tools 6.0 (Scott 2015), the Economics corpus comprises 85,063 tokens and the Law corpus 78,637 tokens (total: 163,000 tokens), as shown in Table 1.

	Economics subcorpora	Law subcorpora
No. of Journals and Titles	*The Economic Journal – Economic Policy – The Econometrics Journal*	*The British Journal of Criminology - Journal of Empirical Legal Studies - Law & Society Review*
No. of RAs from selected Journals	10	10
No. of RAs taken from each Journal	EJ: 4 – EP: 3 – EcL: 3	BJC: 4 – JELS: 3 – LSR: 3
Publication years of RAs	2015-2016-2017-2018-2019	2015-2016-2017-2018-2019
No. of tokens	85,063	78,637
Total	163,700	
No. of sentences	2,782	2,123
Total	4,905	
Mean (in words)	28.34	35.72
Total	64.06	

Table 1
Quantitative data of RAs corpus- Word Smith Tools 6.0 (Scott 2015).

2.2. Contextualizing the corpus data

The journals selected for the current corpus share a common commitment to reporting empirical research based on observed and measured phenomena by deriving knowledge from actual experience rather than from theory (Creswell 2009). Essentially, this means that empirically-oriented research in the samples relies on a mixture of quantitative and qualitative forms of data collection and analysis through direct and indirect observation or experience in each of the two social science disciplines, involving surveys, case studies, ethnographic or observational methods. To exemplify this in the current datasets, Economics writers determined, for instance, the role of technological substitution in low-wage labour markets, or Law writers investigated the contribution of small claims courts to enhancing access to justice, and in both cases their purpose was to elicit changing conditions, perceptions and findings about the phenomena under study. By so doing, writers in the ongoing corpus systematically combine inductive (qualitative) exploratory work with deductive (quantitative) data, so that the nuances and mechanisms underlying the themes may be examined in more detail.

This way of devising empirical studies in the corpus tie writers to the standard Introduction-Method-Results-Discussion (IMRaD) format of article writing (Swales 1990), or appropriate variations thereof, as necessary to structure an academic argument within the paper and provide an evidence-based position, and/or perspective on the topics. This way of adopting the IMRaD format and structuring an academic ‘argument’ around quantitative/qualitative methods naturally situates the writers' disciplinary studies on a basic continuum between the sciences and the humanities academic knowledge disciplines (Coffin *et al.* 2003), signifying that Economics and Law papers are as much a part of experimental, quantitative methods of data analysis adopted from the sciences as are the more interpretative, qualitative methods of data analysis adopted from the humanities.

2.3. Analytical framework and data coding

To address the two research questions both in qualitative and quantitative terms, this study relied on the five interactional metadiscourse markers provided in Hyland's (2005a) taxonomy, namely, *hedges*, *boosters*, *attitude markers*, *self-mentions* and *engagement markers*, which in themselves perform "rhetorical" and "pragmatic" functions (Hyland 2005a, p. 25).[1] These metadiscourse categories, as exemplified by their surface lexical realizations shown in the Appendix, were analysed as follows:

- *Hedges*: features which limit the writer's full commitment to a proposition and which indicate his or her evaluation of non-factivity in the discipline as a result of the epistemic status and value of the statements. Hedges were realized by such lexico-grammatical forms as epistemic modal verbs, lexical verbs, adjectives, adverbs, including those used to manipulate precision in quantification, and nouns.

- *Boosters*: features which increase certainty about propositions and which provide a certain rhetorical balance with hedges. Unlike hedges, which "indicate the writer's decision to recognize alternative voices and viewpoints and so withhold complete commitment to a proposition", boosters therefore "allow writers to close down alternatives, head off conflicting views and express their certainty in what they say" (Hyland 2005a, p. 52). In the current corpus, boosters comprised epistemic modal auxiliary verbs, lexical verbs, adjectives, and adverbs, serving to accentuate the writer's epistemic stance and promote solidarity with readers as well (Hyland 1998; Peacock 2006).

- *Attitude markers*: features which express the writer's affective evaluation of propositional information in a variety of evaluative stance expressions revealing agreement, importance, surprise, obligation, and so on. They were signalled by deontic modal verbs, attitude verbs, adverbs, and adjectives. Because writers recognise new ground for

[1] Another study by this author (in preparation) has focused on the interactive metadiscourse markers (Hyland 2005a) realized in the same corpus of RAs.

knowledge and claim originality for work done in the current disciplines, some fine-grained distinctions were also made within this taxonomy. So, differently lexicalised attitude markers (for example, *consistent, new, novel, noteworthy, robust, significant-ly, valid*), were also analysed and interpreted as realising the meanings of "'significance' (that is, relevance, importance) and 'assessment' (namely, acuity, efficacy, novelty, interestingness, validity, strength, quality" (Mur-Dueñas 2010, p. 62), providing writers with another component of rhetorical expression and solidarity in this kind of academic writing.

- *Self-mentions*: features which convey the extent of authorial role or identity of scholars though the exclusive first-person pronoun (*we*) and possessive adjective (*our*). In the absence of implicit and indirect means (for example, *this author*) in the textual data, reliance on self-mentions is the most explicit means by which writers fulfil several different rhetorical functions in their writing, ranging from discourse organization, marking the writer's role in the research, to negotiating knowledge claims (Harwood 2005; Hyland 2002b).

- *Engagement markers*: items which focus more on reader involvement in the text. They were signalled by inclusive reader pronouns and possessives for the construal of authorial presence and knowledge making (Harwood 2005; Hyland 2002b; Kuo 1999; Tang, John 1999), directives for instructing readers to behave in a particular way, rhetorical and real question forms for engaging readers overtly, and asides for interrupting the flow of text (Hyland 2005a).

This range of interactional metadiscourse features was chosen to understand how the scholars as authors make "explicit interventions to comment on and evaluate material" (Hyland 2005a, p. 44) and involve readers collaboratively in textual construction, creating four elements of communication: writer, reader, language and reality (context). Such an understanding, then, provides a response to the interpersonal component of argumentative writing in the academic genre where the social and intellectual activity of disciplinary writers becomes part of a consensual knowledge.

All of the textual data in the present corpus were read and identified for their potential metadiscourse features between the two disciplines. Once it was decided that a given feature qualified as metadiscursive, it was labelled under the categories outlined above. Then, individual items were searched for electronically in the whole corpus using WordSmith software (Scott 2015, 6.0), and almost 300 total instances were obtained for those items. After retrieval, each instance was carefully analysed in context to make sure that it functioned as a metadiscourse marker in the text and could be included in the frequency counts of each of the categories as discussed immediately below.

3. Results and discussion

3.1. Interactional metadiscourse data by frequency: overall patterns

As shown in Table 2, the frequency analysis of metadiscourse categories reveals a total of 5,918 interactional metadiscourse items in the whole corpus, where they rank slightly higher in the Economics (3,063) than the Law subcorpora (2,855).

Category and Subcategory	**Economics**		**Law**		**Combined subcorpora**	
	N°	*%*	*N°*	*%*	*N°*	*%*
Interactional metadiscourse						
Hedges	1,363	44	1,212	42	2,575	43
Boosters	584	19	531	19	1,115	19
Attitude markers	476	16	504	18	980	17
Self-mentions	128	4	153	5	281	5
Engagement markers	512	17	455	16	967	16
Total	3,063	100	2,855	100	5,918	100

Table 2
Frequencies of interactional metadiscourse markers in Economics and Law social science research articles.

If we look at the overall incidence of individual metadiscourse markers in the whole corpus, we will see that hedges hold the lion's share in the data (43%) while boosters rank as the second most frequent devices (19%) followed closely by attitude markers (17%), engagement markers (16%), and self-mentions along the way (5%). We see that writers are ready to be more cautious by hedges than assertive by boosters about their claims and arguments in research reporting, and are less likely to express an attitude to what they say, address readers by engagement markers, or to intervene with personal presence by self-mentions. If we turn to the incidence of metadiscourse markers in each discipline, we see that they are almost evenly distributed between the two fields, suggesting how academic writing conventions change little from one discipline to another. On the whole, these frequency counts are largely consistent with the findings of other studies on different types of academic writing across disciplines (Hyland 2005a; Khadije, Reza 2017; Khedri, Konstantinos 2018; Lee, Casal 2014; Tessuto

2012), where interaction is created through the social and discursive practices of individuals.

In general, therefore, and as will become increasingly clear throughout, the frequency analysis of metadiscourse patterns shows the important role they have in managing writer-reader relationships and reflecting discipline-specific knowledge-making practices in the genre.

3.2. Interactional metadiscourse resources by frequency and function

With these data in hand, let us now look more closely into how the broadly variable frequencies of interactional metadiscourse strategies are realized functionally in the empirical research article used for effective argumentation and persuasion by disciplinary writers.

3.2.1. Hedges

To begin with hedges, the most heavily used interactional metadiscourse subcategory in the corpus (43%), Table 3 shows overall that epistemic modal verbs tend to be the most frequent devices (48%), with epistemic adverbs accounting for a fifth of all such devices (21%) down to epistemic adjectives (17%), epistemic nouns (8%) and epistemic lexical verbs (6%). However, the distribution of these features is kept almost uniform in each discipline.

Hedges	**Economics**		**Law**		**Total**	
	N°	*%*	*N°*	*%*	*N°*	*%*
modal auxiliary verbs	636	47	589	49	1,225	48
lexical verbs	85	6	73	6	158	6
adjectives	249	18	188	15	437	17
adverbs	269	20	277	23	546	21
nouns	124	9	85	7	209	8
Total	**1,363**	**100**	**1,212**	**100**	**2,575**	**100**

Table 3
Frequencies of hedges in the corpus.

Implied in these findings is the fact that the writer's commitment to the truth value of the statement through hedges is mainly a lexical phenomenon, and different devices like *may*, *suggest*, *probable*, *perhaps*, and *assumption* inventoried in the data have the rhetorical effect of weighting the expression of this commitment depending on how the writers qualify the epistemic value of the statements and pragmatically position the writer-reader relations. So, while lexical hedges enable writers to establish a protective boundary against their readers potentially holding different views around a topic, the rhetorical effect of hedging is also variously achieved in evaluative *that* constructions (Hyland 2005a; Hyland/Tse 2005), or extraposed structures with *that* or *to*-infinitive clause patterns (Biber *et al.* 1999; Hewings, Hewings 2002; Kaltenböck 2005) controlled by different epistemic predicates for expressing the writer's opinion or stance.

In the examples below, different kinds of lexical hedges play a significant role in expressing the writers' tentativeness attached to the propositions and evading responsibility for their scientific claims and arguments:

(1) We divide the treatment effects by the proportion of immigrants that could possibly be mobilised to vote by the treatment […]. (Eco)

(2) First, we allow for $\psi j \geq 0$ and, second, we allow for the possibility that $\gamma \neq \beta$; that is, the wage-setting rules in the two sectors may differ in the relative weights placed on productivity versus education. (Eco)

(3) This is more likely to happen when there is a pure public-sector premium that is increasing with worker qualifications. (Eco)

(4) Devolving power to 'active citizens' would reasonably improve effectiveness and generate new democratic accountabilities and scrutiny. (Lw)

(5) However, while the number of areas with a scheme seems to have remained comparatively stable, […]. (Lw)

Not only do these epistemic devices indicate the writers' evaluation of factivity of the knowledge claims and present information as an opinion rather than an established fact, they also help the writers to make predictions about how readers are likely to subscribe to those claims from within the boundaries of a disciplinary discourse. Because of the need to lessen the force of the writer statements, this kind of metadiscourse turns on the social and epistemological assumptions of empirical writers and readers' uptakes – both leading to the appropriate sense of meaning and rhetorical appropriateness.

Lexical hedges are also used to limit the qualitative nature of the claims, as in (6-7), or to manipulate precision in quantification (8):

(6) There is mixed evidence on somewhat higher paying occupations, where […]. (Eco)

(7) However, co-productive relationships and activities are various and complex, and their contribution may be more or less allied to the core task of a public service. (Lw)

(8) And at the same time, household membership has been falling—from 80% in 1988 to about 40% by 2010–11. (Lw)

Moreover, the ability to modulate scientific claims and bring readers round to speculative possibilities can also be seen in the grammatical phenomenon of hedging realized by evaluative *that*-constructions. In the examples below, writers are being prudently involved in the reporting of research and attributing the evaluation of material in the *that* clause to either themselves through a verbal predicate (9), or attributing the source of evaluation to an abstract entity such as a research model (10):

(9) We argue *that* conservation areas in England are particularly amenable to the proposed methodology. (Eco)

(10) Our baseline calibration indicates that most of this premium is attributable to different distributions of education across the two sectors. (Lw)

Likewise, writers are also removing themselves as human subjects from the evaluative source of research and attributing the evaluation of material to other peoples' studies, thus handling their discourse in various ways and displaying their stance towards the relevant information:

(11) Studies have suggested *that* participation in anti-crime initiatives, including NW, is facilitated where residents have favourable opinions towards the police […]. (Lw)

Alongside these realizations, making commitments to hedged claims becomes evident in the syntactic instances of *it*-extraposed *that*-clauses shown below. Structures like these allow the writers to obscure their source of opinion and foreground their evaluative (epistemic) stance towards the proposition in the projecting clause, and at the same time to present a generalizable, negotiable source of the comment to the evaluative entities under discussion:

(12) It is likely *that* these trends not only wash out non design locational factors but also external visiting effects, […]. (Eco)

(13) It may be assumed *that* citizens' beliefs about the police are related to their willingness to engage in anti-crime measures […]. (Lw)

(14) So, overall, it appears *that* patent litigation in this early period was not particularly prone to macroeconomic forces […]. (Lw)

We therefore see how hedging strategies pave the way for more contextually diverse outcomes, as writers seek to manage discourse by constructing effective lines of argument around their own subjectivity and range of possible alternatives to better answer questions for the intended audience. These strategies, then, show the major work they do in building a shared evaluative context between writers and readers, and become part and parcel of a formalized schema where arguments arise from the patterns of inquiry and empirical research itself.

3.2.2. Boosters

In addition to attending to the most visible hedges, writers do not shy away from other communicative strategies and invest their scientific claims and arguments with a convincing degree of certainty through the interactional resources of boosters which, as seen in Table 2, account for the second-ranking interactional metadiscourse subcategory in the corpus (19%). In line with this, Table 4 shows that verbal boosters represent the most frequent devices overall (48%), with such lexical verbs as *demonstrate*, *find*, and *show* falling into the category of 'research acts' (Hyland 2002a), and conveying the writer's belief in the reliability of information. These rhetorical features are followed by modal boosters (18%) realized by the modal operator *will* (expressing the writer's most definite degree of certainty), by the inferential *must* and *could/could not* modal verbs (the writer deducing that a future state or event is the most logical or rational outcome), and by *should/should not* (the writer believing that a state or event is reasonable to expect). Next in the overall frequency are adjectival boosters (16%), such as *absolute*, *clear*, *obvious*, adverbial boosters (14%), such as *always*, *never*, *plainly*, down to miscellaneous forms (4%), such as *well-known/established*. As with hedges seen before, boosting features are also evenly distributed in each discipline.

Boosters	**Economics**		**Law**		**Total**	
	N°	*%*	*N°*	*%*	*N°*	*%*
modal auxiliary verbs	103	18	96	18	199	18
lexical verbs	271	47	262	48	533	48
adjectives	96	17	89	16	185	16
adverbs	85	15	72	14	157	14
miscellaneous	18	3	23	4	41	4
Total	**573**	**100**	**542**	**100**	**1,115**	**100**

Table 4
Frequencies of boosters in the corpus.

The fact that boosters are less than half as frequent as hedges suggests something of the writers' intentions to convey the right amount of self-assurance 'as and when' required to draw readers into the research topic and promote interpersonal solidarity in the unfolding arguments. Taking appropriate control of these evaluative devices can be seen in the lexical boosting examples below, with the writers presenting their propositions as highly warrantable, and yet ruling out alternative opinions to their own.

(15) Because exclusive consumers are more valuable for the platforms, their tastes will be strongly represented in platforms' offerings, while overlapped consumers' preferences will be under weighted. (Eco)

(16) This certainly indicates incremental pricing as a robust and important result as multi homing consumers become more prevalent. (Eco)

(17) In fact, various planning policies aim at preserving or creating public spaces of particular heritage value or [...]. (Eco)

(18) In overview, given international recognition of the non-random spatial distribution of crime, there is a clear basis to expect neighbourhood variance in the crime drop. (Lw)

(19) Obviously, changes in tier composition can have a significant impact on tier performance. (Lw)

(20) We confirm these findings. [...] Significant differences between neighbourhoods are still evident when these area characteristics have been accounted for, with a residual neighbourhood variance of 0.52. (Lw)

But this way of strengthening the writer's epistemic stance and the value of scientific claims for a general reader agreement is also made available by grammatically realized boosting strategies. So, in the examples below, we see writers indexing an expression of stance through *that* complement clauses, foregrounding the factual status of their own or other researchers' interpretations and results in disciplinary-sensitive perspectives:

(21) Our direct test found *that* regulation was not a primary cause of declining dynamism/churn. (Eco)

(22) It is clear *that* the power of a test that uses GLS detrended data is higher than its OLS based counterpart for all cases, [...]. (Eco)

(23) In such a setting, it is well known *that* higher costs arising from a minimum wage hike unambiguously lead to less local low skill employment [...]. (Eco)

(24) We find, however, *that* litigation risk is not significantly related to the incidence of director liability protection, [...]. (Lw)

(25) Gillan and Panasian (in press) show *that* greater director insurance is associated with a greater risk of being sued. (Lw)

(26) This study's findings establishes *that* discriminatory sentencing practices exist. (Lw)

As is clear, boosting is also particularly important in these grammatical realizations since writers are committed to revealing personal involvement in the presentation of findings through pronouns (21, 24), establishing the neutrality and objectivity of what they report through impersonal *it*-subjects (22, 23), or selecting animate (25) and inanimate agents (26) for their propositions.

Thus, in our account, these boosting strategies not only provide writers with the means to present the evidential reliability of information obtained from personal experience or from others in the ongoing empirical research, but also structure their social interactions in the genre, where discursive practices are always about the explicit development of an argumentative position and follow the course of rhetorical persuasion. In the light of this, hedges and boosters can be seen to adjust for a subjective and objective evaluation of material to anticipated reactions from community readers and to facilitate readers' retrieval and verification of the knowledge claims made by writers in research reporting.

3.2.3. Attitude markers

As seen in Table 2, attitude markers are the third most common subcategory in the corpus (17%). Table 5 shows overall that adverbs (45%) take precedence over adjectives (39%), followed by lexical (10%) and modal verbs (6%). Of these, adverbs also function as sentence adverbials and adjectives as subjective complement in sentences with expletive *it*-clauses. Even though Table 5 reveals no substantial variance in the distribution of these features in individual disciplines, the range of attitude markers realized by *have to*, *must*, and *should* deontic modal verbs, attitude verbs (for example *agree*, *disagree*, *hope*, *prefer*, *expect*), adverbs (*admittedly*, *hopefully*, *unexpectedly*), and adjectives (*critical*, *important*, *remarkable*) is relevant to activate evaluative stances towards the topic-related entities, while also positioning readers to supply their own assessments.

Attitude markers	**Economics**		**Law**		**Total**	
	N°	*%*	*N°*	*%*	*N°*	*%*
modal auxiliary verbs	26	6	37	7	63	6
lexical verbs	43	9	51	11	94	10
adverbs	226	47	219	43	445	45
adjectives	180	38	198	39	378	39
Total	**475**	**100**	**505**	**100**	**980**	**100**

Table 5
Frequencies of attitude markers in the corpus.

Along these lines, the need to provide a personal evaluation of material and encourage readers to participate in the scientific dialogue can be seen with the writers below overtly intervening through an exclusive *we* pronoun juxtaposed with attitudinal and modal verbs:

(27) While we agree *that* it would be of theoretical interest to be able to remedy these caveats, we believe that, for all practical purposes, it would make little difference. (Eco)

(28) We prefer the long difference/distributed lag specification because the estimates better capture the dynamics [...]. (Eco)

(29) We can hope—but cannot test—*that* this also leads to improved balance on unobserved covariates. (Lw)

(30) We expect, by contrast, *that* a fee cap that significantly reduces the wages of risk will reduce access to legal services, [...]. (Lw)

(31) To provide valid critical values, we must ensure *that* the distribution of the bootstrap test statistic is a consistent estimator of the null distribution of the test statistic whether or not the null hypothesis is true. (Eco)

More specifically here, writers are not only establishing their affective attitude towards certain entities of their own research parameters and representing disciplinary value positions in writer-reader relationship, they are also relating to their status or authority as construed by the pronominal reference.

More than that, attitude is also most explicitly signalled in other ways. So, the examples below give accurate depictions of the writers commenting on what they regard to be 'disappointing/regrettable' (*unfortunately*), and 'arousing curiosity or interest' (*interestingly*) in the treatment of their own realities and activities of research:

(32) Unfortunately, these results generally led to bidirectional indicators for the same variables as the main specification, [...]. (Eco)

(33) Interestingly, even in stranger cases, the majority of rapes were perpetrated in the victim's home. (Lw)

Similarly, we see writers imparting an element of what they think of as being an 'unexpected fact' (*surprisingly*), something 'worthy of notice' (*remarkably*), or 'sufficiently notable/important' (*significantly*) in their research treatment:

(34) The equilibrium outcome is surprisingly simple, even though platform best replies involve various different regimes running [...]. (Eco)

(35) What transpires is that the local asymptotic power functions are remarkably the same unless the number of regressors is [...]. (Eco)

(36) Startups contribute significantly to this reallocation process. (Eco)

(37) After the transformation, the skewness statistic was −0.73, which was significantly lower than the value of 8.13 prior to the transformation. (Lw)

There is little doubt that these examples have the effect of staking the writers' scientific claims and arguments to tangible topics and bringing readers round to their evaluative perspective, informed by the empirical area covered.

But because the existing research article publications tend to make singular knowledge claims of similar kinds in the disciplines, writers also strive for establishing the "significance" and "assessment" (Mur-Dueñas 2010, p. 62) of research work using differently lexicalised attitude markers to create different rhetorical effects. These writers therefore appear to be making explicit statements about the 'relevance', 'quality', 'strength', and 'originality' or 'novelty' of their own research methods and findings which themselves break new ground in the unique nature of knowledge contributions:

(38) This finding is robust to a number of adjustments such as our preferred long difference/distributed lag specification, [...]. (Eco)

(39) Therefore, the chi-squared distribution provides valid critical values for the implementation of QLR tests. (Eco)

(40) An important caveat: we compute the wages of risk based on the full fee, independent of the payment of any referral fee. (Lw)

(41) Furthermore, we propose a new optimal non-lattice distribution for the wild bootstrap suggested by GM2009, [...]. (Lw)

(42) In this regard, patent litigation is especially noteworthy to study because of its overall importance to the economy. (Lw)

Obviously, claims like these are not made and accepted *ex ante* simply by virtue of publication, but are accepted and negotiated *ex post* by the community audience through reading and subsequent engagement. So, the choice for 'importance'/'novelty'-marking adjectives is as central to the genre as claims of substantive content in the disciplines. This alliance of rhetorical features not only serves to build prosodies of attitudinal meanings with the writers' personal evaluations of the topics, but also draws readers round to the writers' assessments of the significance and validity of their own academic work done as part of their intellectual inquiry. At the same time, though, claims for 'importance' or 'novelty' appear to be as much of the writer's own promotional style as the promotional culture itself that lies behind this type of academic writing.

3.2.4. Self-mentions

Representing the least frequent subcategory in the corpus (5%), self-mentions exemplify the authoritative role writers are willing to portray in their field of study. Table 6 shows, overall, that this role is most commonly realised by the exclusive first-person use of the plural *we* pronoun (65%) down to the related form and frequency of possessive determiner *our* (35%), with the distribution of these exclusive cases being fairly identical in individual disciplines.

Self-mentions	**Economics**		**Law**		**Total**	
Exclusive:	*N°*	*%*	*N°*	*%*	*N°*	*%*
we	86	67	97	63	183	65
our	42	33	56	37	98	35
Total	**128**	**100**	**153**	**100**	**281**	**100**

Table 6
Frequencies of attitude markers in the corpus.

Following these data, rhetorical self-mentions plainly reflect the nature of collaborative research on which co-authored articles are based, so they provide the most visible stance and identity role of 'writers as creators of their own work' in line with their qualitatively and quantitatively focused papers. Besides explicit markers, such as first-person pronoun, some inanimate and abstract subjects (for example, *this study/article*) express the identity and view of the author indirectly.

Deployed reiteratively across the structural parts of the articles and possibly influenced by the academic standing of writers, exclusive pronouns are mostly clause-initial and naturally align with several different rhetorical functions they perform in the texts, including those related to sequencing and announcing goals achieved by the discourse-organising function of (interactive metadiscourse) frame markers that fall outside the scope of this analysis (for example, *We divide our analysis into five parts*. *First*, *we consider*...). Thus, viewed within the Introduction sections below, the explicitly persuasive use of exclusive self-mentions helps the writers intrude into the piece of research they co-authored by stating the discoursal goal of the study (43), or by describing a viable research procedure (44), and in this way they provide writers with coherent devices for emphasizing the importance of their own contribution through the major themes under research:

(43) <u>We examine</u> the extent to which technological substitution affects the employment and wage outcomes of individual low wage workers in the Current Population Survey. (Eco)

(44) We assessed the validity of these effects and distinguish among two potential mechanisms that govern them. [...]. Our research utilizes a distinctive and robust experimental design which draws on a sample of 331 legal experts [...]. (Lw)

On other occasions throughout introductory sections, exclusive self-mentions are also effective devices to state the authors' results and make knowledge claims, once again highlighting their distinctive contribution to the research process:

(45) Our analysis directly speaks to this trade off in that we demonstrate that the net effect of regulatory cost and design value is positive of the average conservation area [...]. (Eco)

(46) What we found was that every police force in England, Wales and Northern Ireland (but not Scotland) used out of court resolutions to respond to domestic abuse in 2014. (Lw)

Just as these authorial roles through self-mentions mark out personal research agenda in competence-defining criteria, so too they provide an opportunity for the writers to contrast their own important contributions with previous studies by defending the research niche created by themselves throughout Literature Review sections:

(47) However, unlike other findings in the job polarisation literature, the loss of low wage routine cognitive jobs during our period of analysis has been largely offset by employment growth in other similarly paid jobs[...]. (Eco)

(48) Thus, our findings challenge any assumptions about there being a straightforward linear relationship between crime rates and NW or disadvantage and NW. Instead, we conclude that citizens will participate in NW where the 'conditions are right'. (Lw)

We therefore see that authorial presence through exclusive self-mentions enables writers-as-researchers to gain credibility in their presentation of research purposes, data, method, findings and conclusion, helping them build a consistent authorial identity drawn upon the regularities of their empirical research practices.

3.2.5. Engagement markers

Finally, representing the fourth-ranking metadiscourse subcategory in the corpus (16%), engagement markers focus the attention of readers by shortening the distance between the writer and the reader. Table 7 shows overall that writers meet the readers' expectations by engaging them as discourse participants mostly through reader pronouns (591 - 61%), comprising more cases of inclusive first-person plural *we* pronoun (50%) alongside related forms of object pronouns *us* (18%) and possessive pronoun *our* (32%). While this greater use of reader pronouns is manifest more among the Law writers (324 times), we find that 32% of all directives (311) are used to attract the reader's attention mostly by imperative verbs (67%), as opposed to obligation/necessity modals (19%), or predicative adjectives for expressing importance/necessity (14%), with questions (4%) and personal asides (2%) being dotted here and there around the articles.

However, these figures are not equally distributed over the two disciplines since writers in the Economics subcorpus make far more use of imperative verbs (83%) than their fellow colleagues (39%), while the Law writers are more willing to use obligation/necessity modals (35%) and predicative adjectives (26%) as well as questions (7%) than the Economics writers (modals: 10%; predicative adjectives: 7%; questions: 2%).

Engagement markers	**Economics**		**Law**		**Total**	
	N°	*%*	*N°*	*%*	*N°*	*%*
Reader pronouns (*inclusive*):						
we	134	50	161	50	295	50
us	45	17	64	20	109	18
our	88	33	99	30	187	32
Subtotal	**267**	**100**	**324**	**100**	**591**	**100**
Directives by:						
a) imperative verbs	169	83	41	39	210	67
b) predicative adjectives for importance/necessity in *that* or *to*-clause or passive constructions	15	7	28	26	43	14
c) obligation/necessity modals in *that* or *to*-clause or passive constructions	21	10	37	35	58	19
Subtotal	**205**	**100**	**106**	**100**	**311**	**100**
questions	10	2	35	7	45	4
personal asides	12	2	8	2	20	2
Total	**494**	**100**	**473**	**100**	**967**	**100**

Table 7
Frequencies of engagement markers in the corpus.

In line with these findings, the examples below reveal just how inclusive pronouns encourage the audience to appreciate the writers' own perspectives with regard to the research topics under investigation and draw on common knowledge and principles:

(49) We further assume *that* productivity at *N* and *R* is capped for a specific occupation – i.e. a PhD physicist will be no more productive as a cashier than many high school graduates. (Eco)

(50) Our assumptions reflect four important modelling choices. First, we are ruling out on-the-job search. (Eco)

(51) While there are currently no nationwide statistics on police occurrences involving domestic abuse and same-sex partners, we suggest *that* this should be the focus of further research. (Lw)

(52) An appreciation of this helps us to see the inventive strategies employed by participants to display family despite imprisonment. (Lw)

In this way, the examples provide effective rhetorical strategies to establish a valuable, persuasive degree of personal engagement with one's audience.

But other opportunities for interactional communication are also made available by directives, with the functional uses of imperative verbs "referring [the readers] to another text" through a "textual act" (Hyland 2002c, p. 217), or directing them "to understand a point in a certain way" through "cognitive acts" (Hyland 2002c, p. 217), thereby creating a rhetorically persuasive rapport with readers in the ongoing topics.

(53) Indeed, NW is supported by national infrastructure (see, e.g., Author *et al.* + Year). (Lw)

(54) Note that our definition requires that an occupation state's wage bin is fixed over the panel, although […]. (Eco)

(55) Suppose, to take an extreme example, *that* second tier firms obtain their cases entirely by referral […]. (Lw)

Likewise, other directive-functioning opportunities for impersonal interactions in the texts (rather than a more visible presence of the writers through inclusive self-mentions, as seen above) are made available by predicative adjectives and modal verbs, as in:

(56) It is also necessary *that* any spatial policy affecting only a specific type of zone within a neighbourhood is implemented uniformly across neighbourhoods. (Eco)

(57) It is important *to* unpick what the terms 'restorative justice' and 'community resolution' mean in terms of policing […]. (Lw)

(58) It *should* be remembered *that* *C* might change over time as, for example, customers require fewer non routine workers […]. (Eco)

Examples like these not only efface the writers' discernment of 'importance', 'necessity' or 'obligation' in the extraposed *to* or *that*-clauses, but also carry the readers through a dialogic dimension of argumentation in their research work since writers intervene to direct readers to some action or understanding and persuade them to accept their claims stated in those clauses.

Finally, we can see writers seeking to manage the structure of their arguments and drawing their readers into the research problem with an immediate reply through questions (59), or establishing part of their argument through parenthetical personal asides (60):

(59) Have they lost the capability to innovate and add value or is the only change at these switching firms the lack of production activity? Our findings emphasize that the focus on employment at manufacturing firms overstates the loss in manufacturing-related capabilities that are actually retained in many firms that switch industries. (Eco)

(60) This conflation across force recording systems (and arguably also in terms of each force's use and understanding of the terms) is why we have coined the broader term 'out of court resolution'. (Lw)

To sum up, different interactional meanings are created by the strategic use of engagement features, which are influenced by academic traditions and formalised argument structures in the two fields. These rhetorical features, in turn, provide a grasp of disciplinary mechanisms in the writing of the genre and the ways Economics and Law writers are able to construct a community-situated identity for themselves.

4. Further discussion and conclusion

This study has examined the significance and role of interactional metadiscourse resources in research articles belonging to two comparable disciplines, Economics and Law. It has revealed that these resources engage readers with the rhetorical and persuasive objectives of their empirical research reporting, and provide the tools for framing research arguments that are unique to the special interests and concerns of the writers in areas of specialized knowledge.

The corpus-informed distributional and functional analyses show that there are broad similarities, as well as minor, interesting differences in this kind of metadiscourse use between the two disciplines, pointing to the ways Economics and Law writers do interactional work and achieve diverse rhetorical outcomes in the genre. So, while Economics and Law writers are far more interested in engaging readers with their ideas presented tentatively and prudently by hedges, they are nevertheless involved in strengthening their claims and positions and consolidating their research more strongly by boosters, expressing their personal evaluation of information. Along with this, they are stressing the saliency and originality of their research by attitude markers, and encouraging reader involvement in the text through engagement markers. Only on very few occasions do writers convey their credibility to write authoritatively by self-mentions. In this way, then, writers provide sufficient cues to project a shared academic context through an argumentative and interpersonally evaluative stance on their research topics, and to acknowledge the rhetorical and pragmatic distinctiveness of the context and culture-dependent genre by establishing a connection with like-minded readers.

These findings also suggest that the inclusion of a coherent set of interactional metadiscourse resources in the sample corpus is as much a part of the writers' rhetorical decisions made in the texts as are the discrete epistemologies that rule over qualitative and quantitative methods of empirical research employed in such disciplinary contexts. This is to say that there are clear criteria for justifying a mixture of observational (quantitative) and interpretive (qualitative) methods of data collection and analysis in systematic arguments. Through this, important economic or legal issues are discussed in the writers' common experience with interactive texts and valued for the role they play in research publications. After all, engaging in an argument through these data analytical methods is crucial if empirical writers are to investigate a phenomenon, determine the amount and types of evidence required, or the value and meaning of the research findings, and to finally see how well they yield predictions that are consistent with their 'self-observed' behavior and 'interpretive' judgment about the topics they study in the fields. At the same time as writers are holding allegiances to quantitative and qualitative research paradigms for specific argument forms and displaying an orientation to the significance of the ideas expressed in the genre, their research practices are themselves relevant to make pragmatic assumptions about how social reality should be studied and what can be regarded as acceptable knowledge.

In reflecting the writer's own methods of research, this writing process thus involves creating a text that develops the writer's point of view on, or interpretation about a situation being investigated (qualitative research design), and relies on empirical evidence acquired by observation or experimentation to justify the writer's new claims, objectively (quantitative research design). By the same token, this process forms the motivation for the social interactions expressed consciously in the metadiscursive features of texts, thus creating persuasive discourses by which writers ensure "communion with the people the argumentative discourse is aimed at" (van Eemeren, Garssen 2011, p. 5). There comes a point when this writing process homes in on discipline- and method-sensitive patterns of investigation in the genre writing where specialization and ways of knowing in the professions are built on their own terms.

Even though there are clear epistemological criteria for bringing the writers' research practices home via metadiscursive language, appealing to a like-minded community of readers from within an identifiable mixture of qualitative and quantitative tools is not without implications. As seen, differently mixed arguments like these make it clear that the Economics and Law social science writers are virtually responding to "no single method of enquiry […] or definitive set of concepts that uniquely characterizes each particular discipline" (Becher, Trowler 2001, p. 65) to which they belong, since their methodological concerns overlap with those employed in the sciences and the humanities academic fields (Coffin *et al.* 2003). So, even by recognizing that empirical work is unique to their special concerns in this form of argumentative writing, these writers can adopt methods from the sciences, and apply these to their data sources to provide a broader and more complete vision of a problem, and in this way they create specialist knowledge, establish relationships, and gain credibility by giving identity to their respective disciplines.

It follows that the argumentative style of metadiscourse can tell us about the mechanisms for regulating genre production and use in the Law as well as in Economics social science disciplines, and how this style might go some way towards shaping a dynamic identity conveyed by representation and construction of self (Ivanič, Camps 2001) in the accounting of specialised discourse. This kind of identity not only creates meanings in the genre writing and reflects on the workings of language, it also offers an understanding of the ways in which genre writers negotiate the practices from other culturally and epistemologically available tools as part of a personal endeavour. And this provides the boundaries within which the writers' identities are valued in the disciplinary and discursive practices of the genre.

The findings of this study need to be understood within the context of a relatively small corpus approach to representing analytic generalizations of metadiscourse. Even though metadiscourse-analytic categories and features remain controversial in the existing literature, the findings of this study are likely to offer greater insights into the disciplinary writing practices of a major academic genre, and may therefore contribute additional evidence to the current body of scholarship in the field on the fundamental role of metadiscoursal resources in argumentative academic texts. There remains a dependence on metadiscursive categories and features that are indexed across individual sections of the chosen articles.

So, future research may specifically be done with a view to understanding what writers and readers bring to those texts, emphasizing again that the field-specific standards of the disciplines have an important influence on social activity and interaction over time. Beyond the analysis of single metadiscourse categories, these field-specific standards arising from an adaptation of mixed methods also become a clear contender to the traditional, theory-testing or knowledge-building research performed in the Law social science articles, where writers essentially depart from the traditional genre of theoretical legal research and shift towards the "blending of several valuable concepts, methods, theories, data, and tools from other disciplinary sites" (Tessuto 2015b, p. 23).

Bionote: Girolamo Tessuto is Full Professor of English Linguistics and Translation at the Department of Precision Medicine of University of Campania 'Luigi Vanvitelli' where he is also Director of the Centre for Research in Language and Law (CRILL). He also teaches in the Law Departments of the University 'Luigi Vanvitelli' and the University of Naples 'Federico II'. Besides memberships of several academic and professional associations, he is a member of the Clavier Research Centre (Milan), an editorial board member of various international English linguistics journals, and chief editor of the *Legal Discourse and Communication* peer-review international series. His research interests focus primarily on (critical) discourse analysis of academic, professional and institutional genres in legal, medical and healthcare contexts, and English for Specific Purposes. His published academic work comprises research monographs and several publications appearing as research papers, book chapters, co-edited volumes, and book reviews.

Author's address: girolamo.tessuto@unicampania.it

References

Abdi R. 2002, *Interpersonal Metadiscourse: An Indicator of Interaction and Identity*, in "Discourse Studies" 4, pp. 139-145.

Abdi R. 2011, *Metadiscourse Strategies in Research Articles: A Study of the Differences across Subsections*, in "Journal of Teaching Language Skills" 3 [1], pp. 1-15.

Aguilar M. 2008, *Metadiscourse in Academic Speech: A Relevance-theoretic Approach,* Peter Lang, Bern.

Becher T. and Trowler P.R. 2001, *Academic Tribes and Territories: Intellectual Enquiry and the Culture of Disciplines*, The Society for Research into Higher Education & Open University Press, Buckingham.

Biber D. 2006, *Stance in Spoken and Written University Registers,* in "Journal of English for Academic Purposes" 5 [2], pp. 97-116.

Biber D., Johansson S., Leech G., Conrad S. and Finegan E. 1999, *Longman Grammar of Spoken and Written English,* Pearson Education, Harlow.

Bondi M. 2010, *Metadiscursive Practices in Introductions: Phraseology and Semantic Sequences across Genres,* in "Nordic Journal of English Studies" 9 [2], pp. 99-123.

Coffin C., Curry M.J., Goodman S., Hewings A., Lillis T.M. and Swann J. 2003, *Teaching Academic Writing: A Toolkit for Higher Education*, Routledge, London.

Creswell J.W. 2009, *Research Design: Qualitative, Quantitative, and Mixed Methods Approach*, Sage, Los Angeles.

Dahl T. 2004, *Textual Metadiscourse in Research Articles: A Marker of National Culture or of Academic Discipline?* in "Journal of Pragmatics" 36, pp. 1807-1825.

Fu X. and Hyland K. 2014, *Interaction in Two Journalistic Genres: A Study of Interactional Metadiscourse*, in "English Text Construction" 7 [1], pp. 122-144.

Gillaerts P. and Van de Velde F. 2010, *Interactional Metadiscourse in Research Article Abstracts*, in "Journal of English for Academic Purposes" 9 [2], pp. 128-139.

Harwood N. 2005, *'We Do Not Seem to Have a Theory ... The Theory I Present Here Attempts to Fill This Gap': Inclusive and Exclusive Pronouns in Academic Writing*, in "Applied Linguistics" 26 [3], pp. 343-375.

Hewings M. and Hewings A. 2002, *'It is interesting to note that…': A Comparative Study of Anticipatory 'it' in Student and Published Writing*, in "English for Specific Purposes" 21, pp. 367-383.

Hyland K. 1998, *Persuasion and Context: The Pragmatics of Academic Metadiscourse*, in "Journal of Pragmatics" 30 [4], pp. 437-455.

Hyland K. 2002a, *Activity and Evaluation: Reporting Practices in Academic Writing*, in "Academic Discourse", pp. 115-130.

Hyland K. 2002b, *Authority and Invisibility: Authorial Identity in Academic Writing*, in "Journal of Pragmatics" 34 [8], pp. 1091-1112.

Hyland K. 2002c, *Directives: Argument and Engagement in Academic Writing*, in "Applied Linguistics" 23 [2], pp. 215-239.

Hyland K. 2005a, *Metadiscourse*, Continuum, London.

Hyland K. 2005b, *Stance and Engagement: A Model of Interaction in Academic Discourse*, in "Discourse Studies" 7 [2], pp. 173-192.

Hyland K. 2010, *Metadiscourse: Mapping Interactions in Academic Writing*, in "Nordic Journal of English Studies" 9 [2], pp. 125-143.

Hyland K. and Tse P. 2005, *Hooking the Reader: A Corpus Study of Evaluative 'that' in Abstracts*, in "English for Specific Purposes" 24, pp. 123-139.

Ivanič R. and Camps D. 2001, *I am how I sound: Voice as Self-representation in L2 Writing*, in "Journal of Second Language Writing" 10 [1-2], pp. 3-33.
Kaltenböck G. 2005, *It-extraposition in English: A Functional View*, in "International Journal of Corpus Linguistics" 10 [2], pp. 119-159.
Khadije Ghahremani M. and Reza B. 2017, *Exploring Interactive and Interactional Metadiscourse Markers in Discussion Sections of Social and Medical Science Articles*, in "International Journal of Research in English Education" 2 [4], pp. 11-29.
Khedri M. and Konstantinos K. 2018, *Metadiscourse in Applied Linguistics and Chemistry Research Article Introductions*, in "Journal of Research in Applied Linguistics" 9 [2], pp. 47-74.
Kuo C-H. 1999, *The Use of Personal Pronouns: Role Relationships in Scientific Journal Articles*, in "English for Specific Purposes" 18 [2], pp. 121-138.
Lee J. and Casal E. 2014, *Metadiscourse in Results and Discussion Chapters: A Cross-linguistic Analysis of English and Spanish Thesis Writers in Engineering*, in "System" 46, pp. 39-54.
Li T. and Wharton S. 2012, *Metadiscourse Repertoire of L1 Mandarin Undergraduates Writing in English: A Cross-contextual, Cross-disciplinary Study*, in "Journal of English for Academic Purposes" 11 [4], pp. 345-356.
Lorés-Sanz R. 2006, *I will argue that: First Person Pronouns as Metadiscoursal Devices in Research Article Abstracts in English and Spanish*, in "ESP Across Cultures" 3, pp. 23-40.
Matsuda P.K. 2001, *Voice in Japanese Written Discourse: Implications for Second Language Writing*, in "Journal of Second Language Writing" 10 [1-2], pp. 35-53.
Mur-Dueñas P. 2010, *Attitude Markers in Business Management Research Articles: A Cross-cultural Corpus-driven Approach*, in "International Journal of Applied Linguistics" 19, pp. 50-72.
Mur-Dueñas P. 2011, *An Intercultural Analysis of Metadiscourse Features in Research Articles Written in English and in Spanish*, in "Journal of Pragmatics" 43 [12], pp. 3068-3079.
Peacock M. 2006, *A Cross-disciplinary Comparison of Boosting in Research Articles*, in "Corpora" 1, pp. 61-84.
Salas M.D. 2015, *Reflexive Metadiscourse in Research Articles in Spanish: Variation across three Disciplines (Linguistics, Economics and Medicine)*, in "Journal of Pragmatics" 77, pp. 20-40.
Scott M. 2015, *Word Smith Tools* (version 6), Lexical Analysis Software, Stroud.
Swales J.M. 1990, *Genre Analysis: English in Academic and Research Settings*, Cambridge University Press, Cambridge.
Tang R. and John S. 1999, *The 'I' in identity: Exploring Writer Identity in Student Academic Writing through the First-person Pronoun*, in "English for Specific Purposes" 18, pp. 23-39.
Tessuto G. 2012, *Investigating English Legal Genres in Academic and Professional Contexts*, Cambridge Scholars Publishing, Newcastle upon Tyne.
Tessuto G. 2015a, *Posted by...*: *Scholarly Legal Blogs as Part of Academic Discourse and Site for Stance and Engagement*, in Scarpa F. and Engberg J. (eds.), *Textus* XXVIII [2], pp. 85-107.
Tessuto G. 2015b, *Generic Structure and Rhetorical Moves in English-language Empirical Law Research Articles: Sites of Interdisciplinary and Interdiscursive Cross-over*, in "English for Specific Purposes" 37, pp. 13-26.
Tessuto G. 2020a, *Academic Medicine and Health Research Blog Posts as Interaction and Knowledge-making Resources*, in Gotti M., Maci S. and Sala M. (eds.), *Scholarly*

Pathways: Knowledge Transfer and Knowledge Exchange in Academia, Peter Lang, Bern, pp. 233-254.

Tessuto G. 2020b, *Accountability Practices in Research and Publication Ethics on the Web: Linguistic and Discursive Features*, in Garzone G., Catenaccio P. and Archibald J. (eds.), *Debating Evolutions in Science, Technology and Society: Ethical and Ideological Perspectives*, "Lingue e Linguaggi" 34, pp. 231-255.

Toulmin S. E. 2003, *The Uses of Argument* (updated edition), Cambridge University Press, Cambridge.

Tse P. and Hyland K. 2006, *Gender and Discipline: Exploring Metadiscourse Variation in Academic Book Reviews*, in Hyland K. and Bondi M. (eds.), *Academic Discourse Across Disciplines*, Peter Lang, Bern, pp. 177-202.

van Eemeren F. H. and Garssen B. 2011, *Exploiting the Room for Strategic Maneuvering in Argumentative Discourse. Dealing with Audience Demand in the European Parliament*, in van Eemeren F. H. and Garssen B. (eds.), *Exploring Argumentative Contexts*, John Benjamins, Amsterdam-Philadelphia.

Walton D.N., Reed C. and Macagno F. 2008, *Argumentation Schemes*, Cambridge University Press, Cambridge.

Corpora

The Economic Journal (Oxford Open)
<https://academic.oup.com/ej>
Economic Policy (Oxford Open)
<https://academic.oup.com/economicpolicy>
The Econometrics Journal (Oxford Open)
<https://academic.oup.com/ectj>
The British Journal of Criminology (Wiley)
<https://academic.oup.com/bjc/issue/51/1>
Journal of Empirical Legal Studies (Wiley)
<https://onlinelibrary.wiley.com/journal/17401461>
Law & Society Review (Wiley)
<https://onlinelibrary.wiley.com/journal/15405893>

Annex

Metadiscourse markers as exemplified by their surface lexical realizations	
1. Hedges	
a. Modal auxiliary verbs (epistemic)	that is, *can*, *could*, *may*, *might*, *should*, *would*
b. Lexical verbs	for example, *appear*, *believe*, *indicate*, *postulate*, *suggest*
c. Adjectives	for example, *apparent*, *likely*, *possible*, *probable*, *unlikely*
d. Adverbs	for example, *broadly*, *largely*, *mostly*, *perhaps*, *occasionally* including items used to manipulate precision in quantification, for example, *about*, *approximately*
e. Nouns	for example, *assumption*, *claim*, *likelihood*, *possibility*, *suggestion*
2. Boosters	
a. Modal auxiliary verbs	that is, *could not*, *must*, *should*, *will*
b. Lexical verbs	for example, *confirm*, *determine*, *find*, *know*, *show*
c. Adjectives	for example, *clear*, *definite*, *evident*, *obvious*, *undeniable*
d. Adverbs	for example, *always*, *by all means*, *never*, *necessarily*, *plainly*
3. Attitude markers	
a. Modal auxiliary verbs (deontic)	that is, *have to*, *must*, *should*
b. Verbs	that is, *agree*, *disagree*, *hope*, *prefer*, *expect*
c. Adverbs	for example, *admittedly*, *desirably*, *hopefully*, *interestingly*, *unexpectedly*
d. Adjectives	for example, *adequate*, *critical*, *important*, *noteworthy*, *significant*
4. Self-mentions (exclusive)	that is, (exclusive) *we*, *our*
5. Engagement markers	
a. Reader pronouns	that is, (inclusive) *we*, *us*, *our*
b. Directives	imperative verbs (for example, *note that*), predicative adjectives in *that*/*to*-clause, obligation/necessity modals in *that*/*to*-clause
c. Question forms	
d. Asides	